Protect the Master

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Verbs

Player

Move

Dig

Capture

Maneuver (Move in a strategic way to guide the enemy)

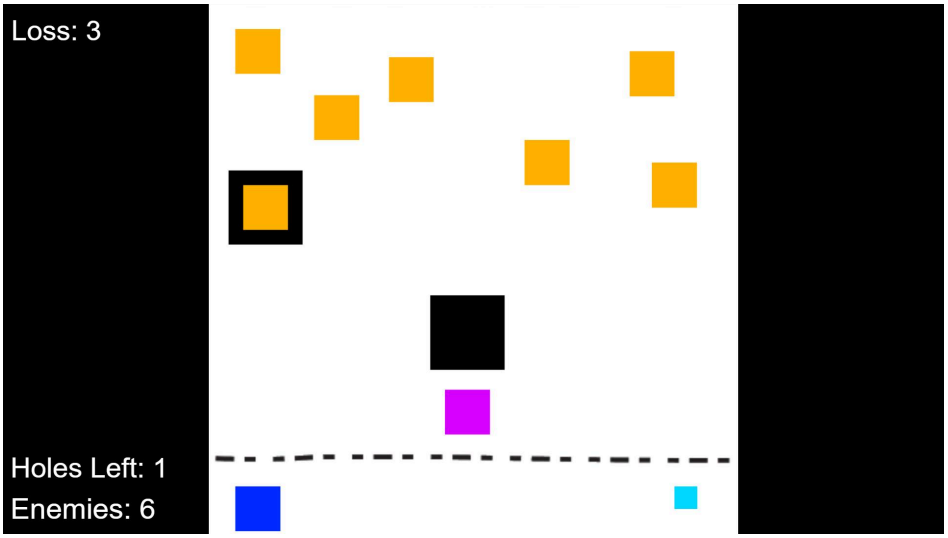
Enemy

Move

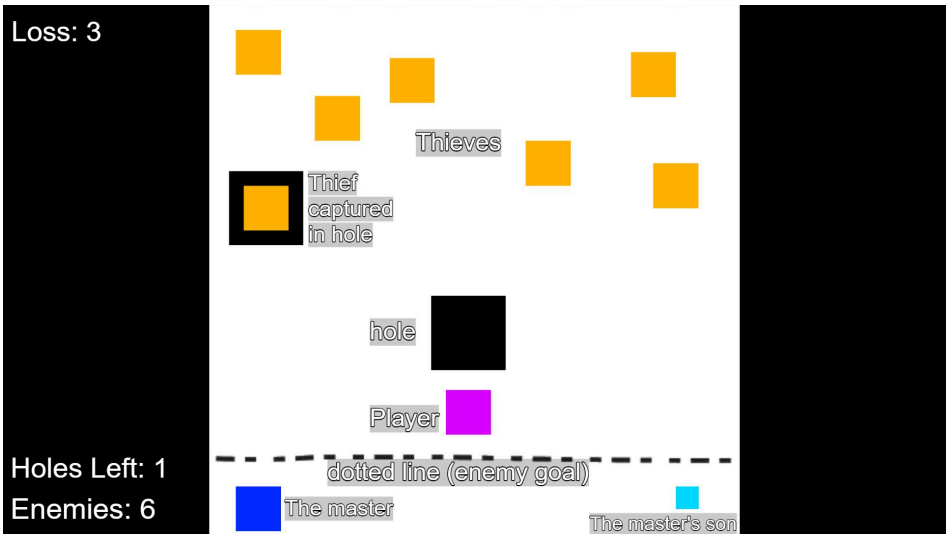
Avoid (horizontally moves away from the player)

Players View

Non-annotated player's view

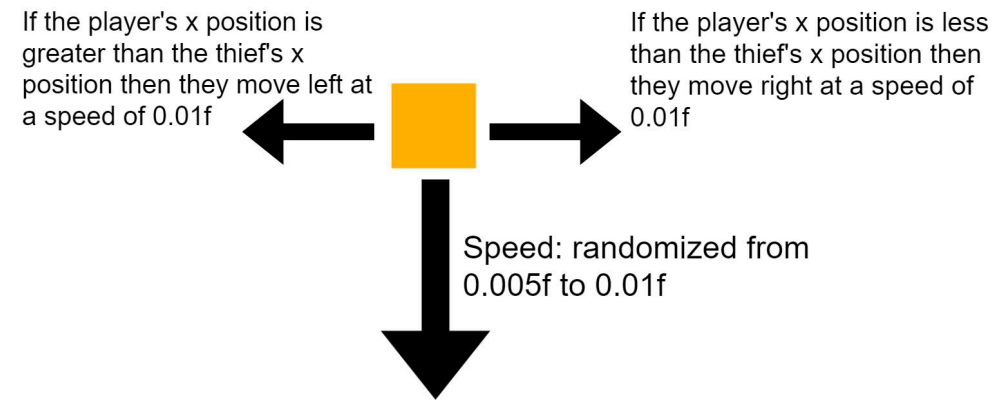


Annotated player's view



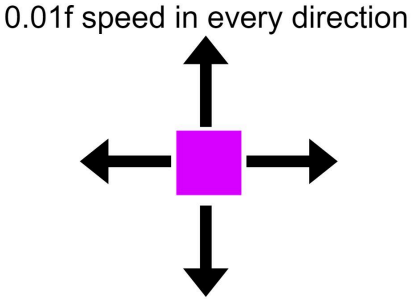
Strategically dig holes, and capture 7 thieves using a maximum of three holes. Any number of thieves can be captured within a single hole. The player cannot pass the black borders, and cannot pass the dotted line either. The thieves will clamp around once they've reached the border unlike the player who can't move past it. If a single thief crosses the dotted line then the player loses.

Thief movement

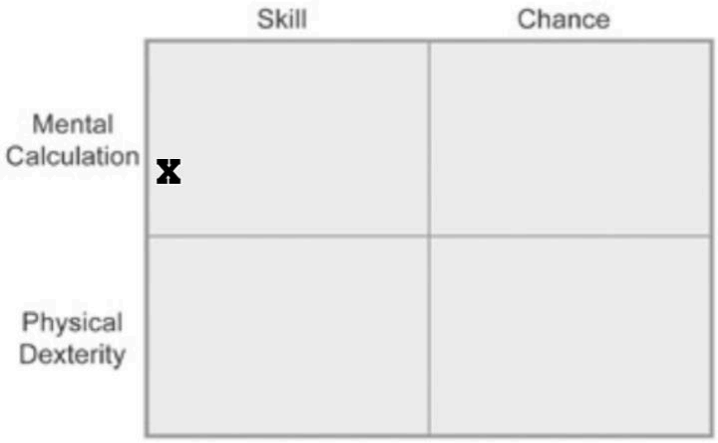


Thief is constantly moving down vertically in its moving state.

Player movement



Matrix



The Experience of Play

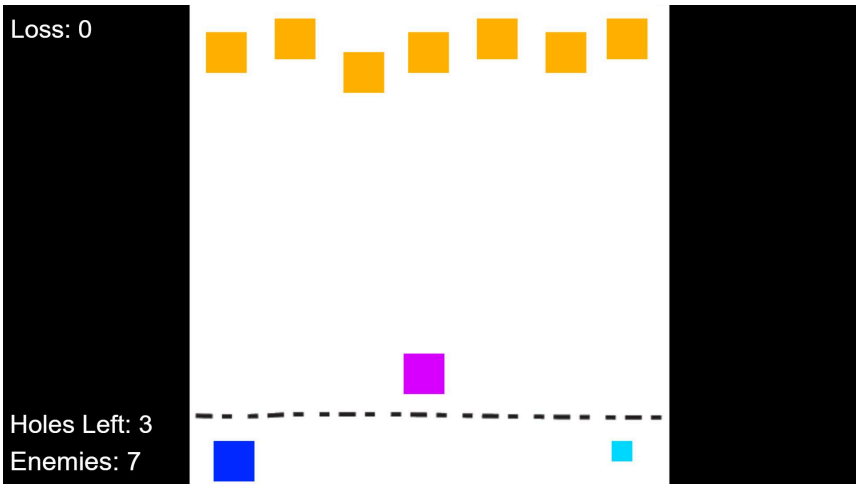
When the player first plays, they will struggle with the amount of enemies vs the amount of holes they will have available, not to mention the enemies constantly moving in opposition to the player horizontally. This creates the sense of a chaotic and unfair playing situation for the player. However, as they keep playing, they will learn the optimal areas in which they can dig their holes, and how to use the enemy avoiding them as a means to lure them into traps. Hence the more a player plays this game, the more they will cleverly be able to overcome the challenges of the number of enemies, the limited number of holes they can dig, and will have to be quick enough to trap every enemy before a single one reaches the

dotted line. Despite the player theoretically being able to control the game by strategizing properly, there is still a sense of uncertainty due to the randomized speeds of the thieves, making the game replayable as well.

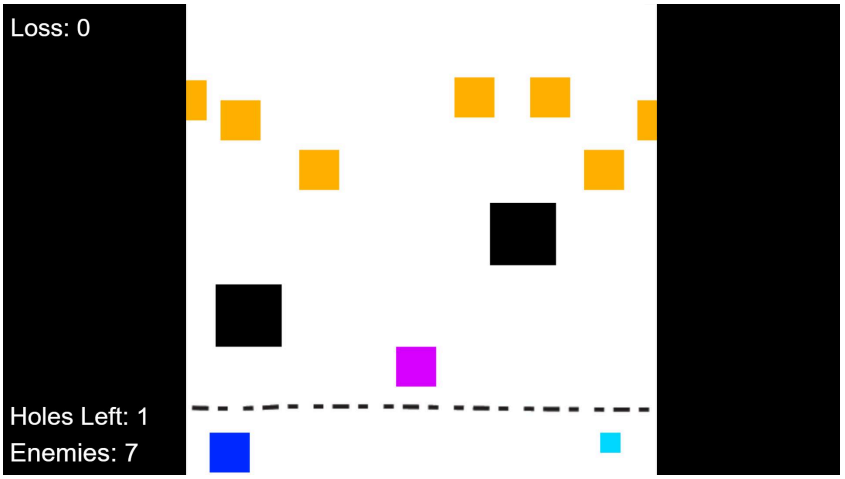
Gameplay Storyboards

Win

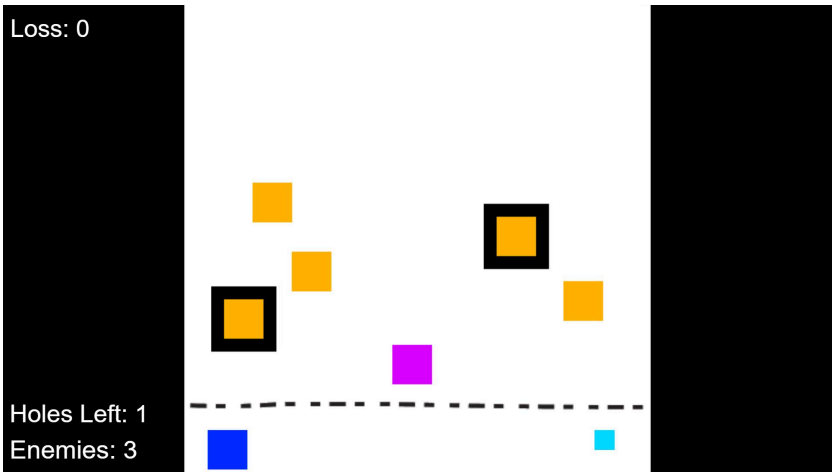
1. Game has just started (this is the initial state of the game)



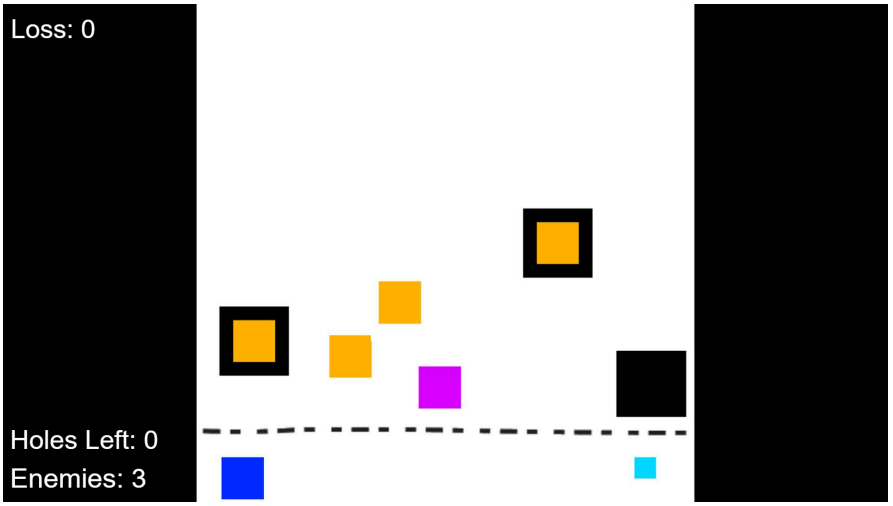
2. Player puts down 2 holes, while thieves proceed to move downwards and avoid the player.



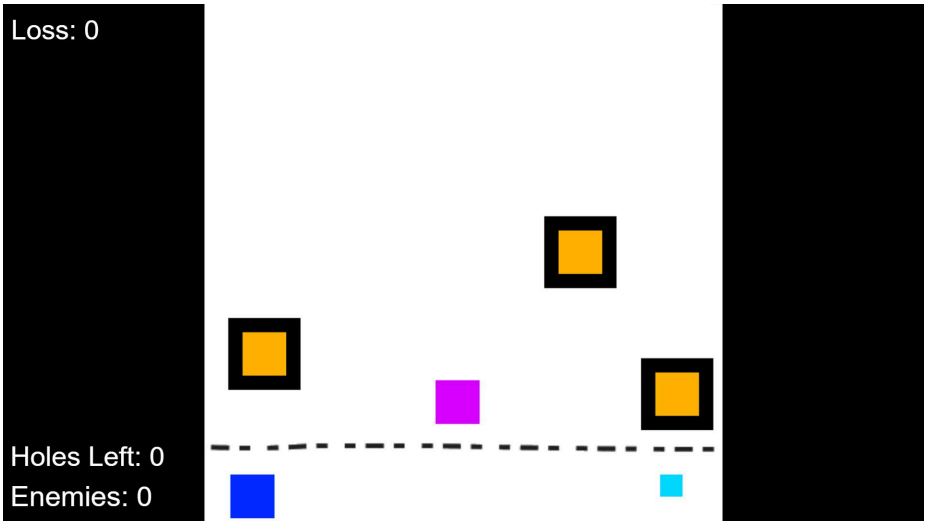
3. Player manipulates 4 thieves into holes



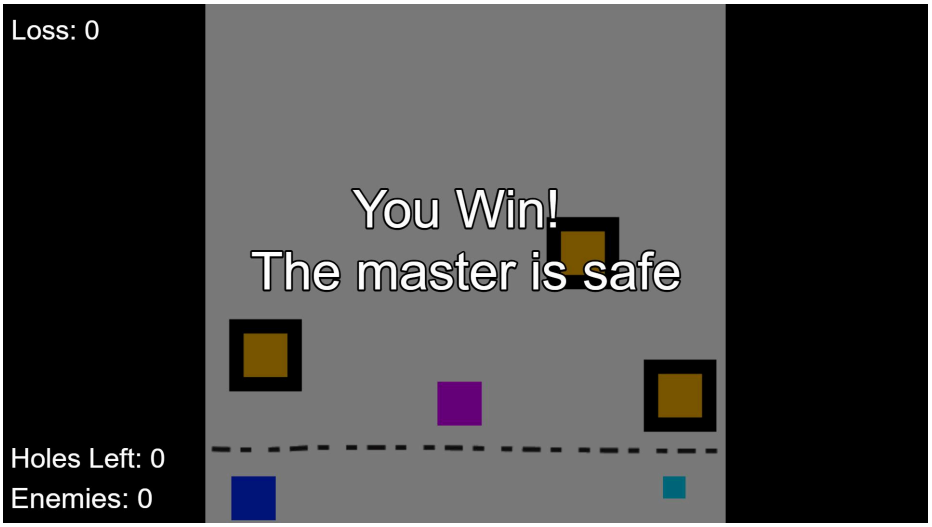
4. Player places a third hole down, another thief is caught in one of the other 2 holes, while the remaining 2 thieves continue to move.



5. The player manipulates the rest of the thieves into the third hole.

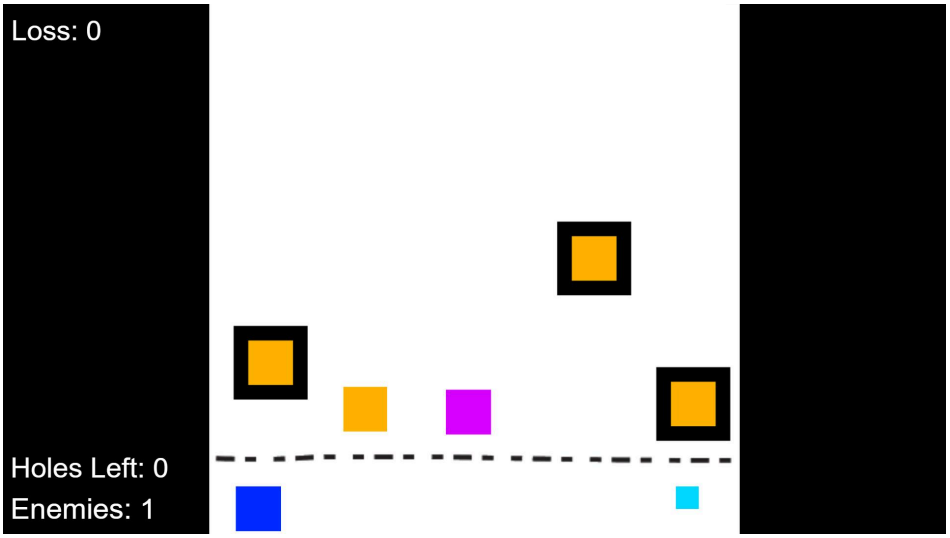


6. Victory screen

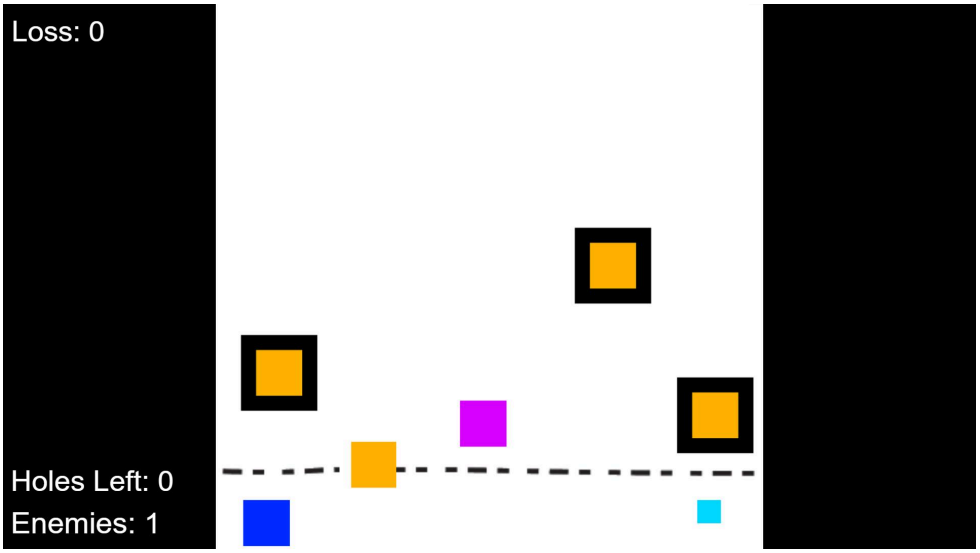


Loss

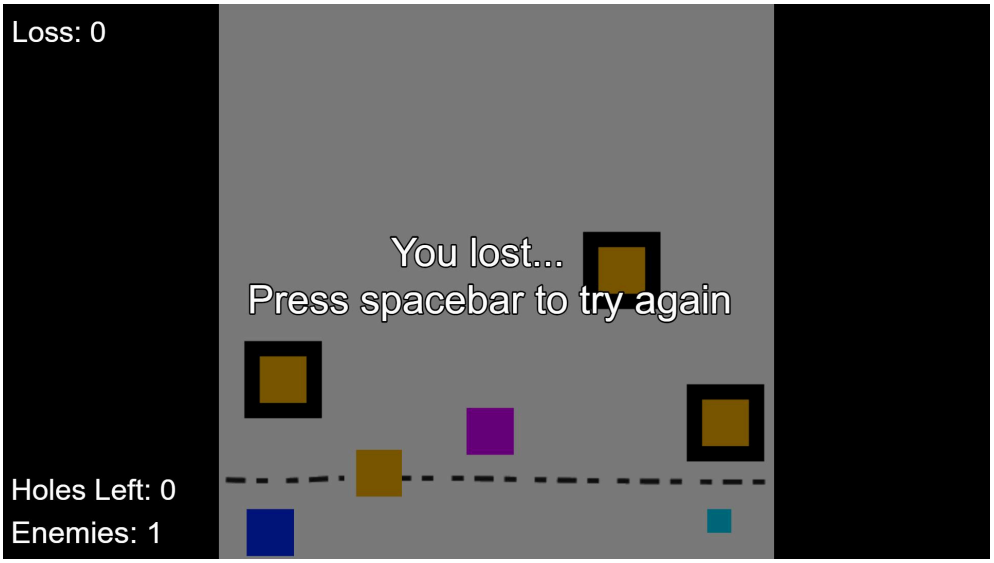
1. The player has 3 holes down, and has captured 6 enemies with one thief remaining.



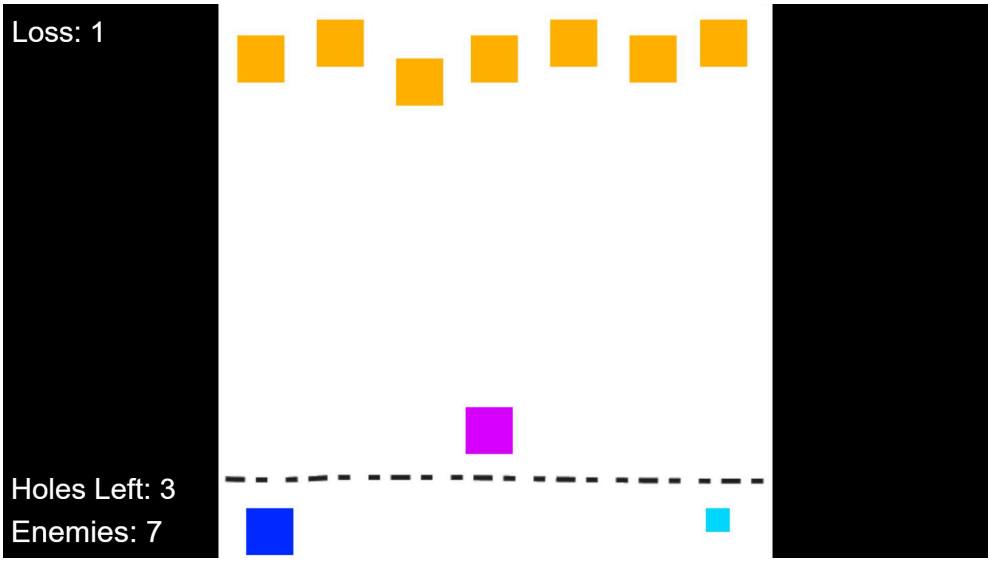
2. The remaining one thief reaches the dotted line, triggering the loss condition.



3. Loss screen



4. The player pressed spacebar. +1 gets added to the loss counter, and the game objects return to their initial positions, with no holes laid out on the screen anymore.



(The game is reset and a loss counter is added in this same capacity when the player presses spacebar in the middle of the game, which is the reset mechanic.)

Conditions

If **a thief** collides with a hole, then their state will be **idle**.
If **every thief** is in an idle state, then **player WIN.**
If **a single thief** crosses the dotted line, then **player LOSS.**
If **the player** collides with **a thief**, then **player LOSS.** (This is highly unlikely but it can occur if the player maneuvers incorrectly)
If **player LOSS** or **player RESET,** then **+1** to loss/reset counter and **reset the game object positions**.

Controls

If **input A** then the player moves to the left.
If **input D** then the player moves to the right.
If **input W** then the player moves to downwards.
If **input S** then the player moves to upwards.
*The player does not have the ability to **clamp**. They merely **stop moving** when they hit the borders**, the top wall, or the dotted line**. They cannot cross any of these areas. **The holes** also act as walls for the player. They cannot move over it, so they have to move around it.*

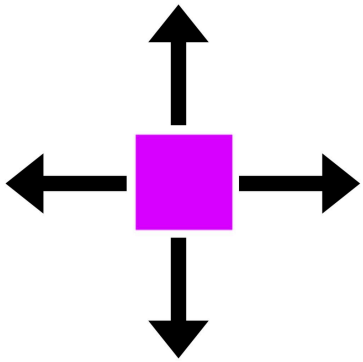
If **input I** then a hole will spawn in front of the player (same x position, with a +0.3f change in y position)
If **input K** then a hole will spawn below the player (same x position with a -0.3f change in y position)
If **input L** then a hole will spawn to the right of the player (same y position with a +0.3f change in x position)
If **input J** then a hole will spawn to the left of the player (same y position with a -0.3f change in x position)

The player can only dig 3 holes per game, if they press K after 3 holes are dug then nothing will happen

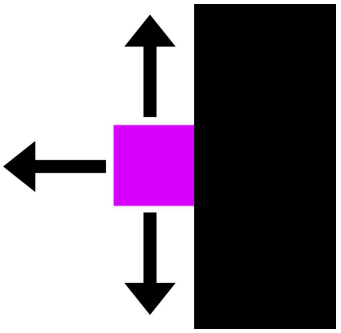
If **input spacebar** and **game state is not won** then the game will completely reset.
This is for when a player can see that they have already lost, and can just quickly reset the game without having to witness the loss condition fully activate. However, there will be a counter to the top right of the screen that counts your resets and losses. The player is also given the option to click spacebar to reset if the loss condition is activated, and that will likewise cause a +1 addition to the loss counter.

Events and Actions

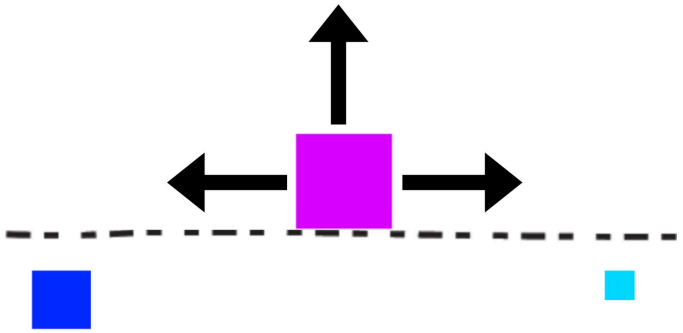
Player movement



If player's state is "moving" then the player can move in any direction. W to move up, S to move down, D to move right, and A to move left.
If the player's state is "stop" or "dead" then they cannot move, and must press space to reset and continue moving once again.

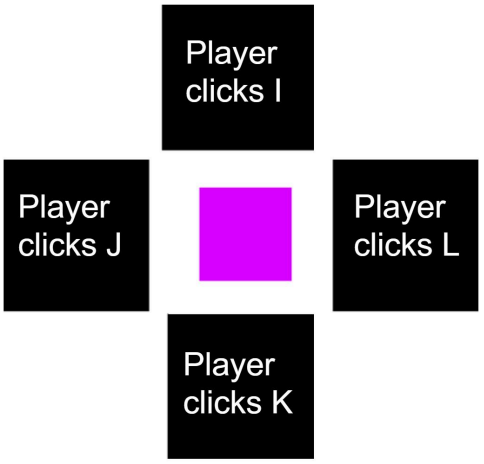


The player cannot move to the right if the border is to the right. They cannot clamp, meaning that the borders act as strict walls for the player.



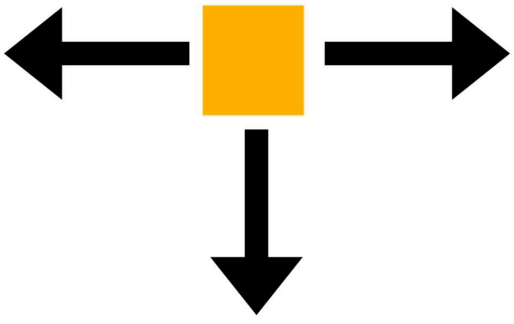
The player cannot move down if the dotted line is right below them. They cannot move past the dotted line into the area where the master and his son are. Similarly, the player cannot move upwards after they reach the vertical end of the screen (the top of the screen).

Digging a hole



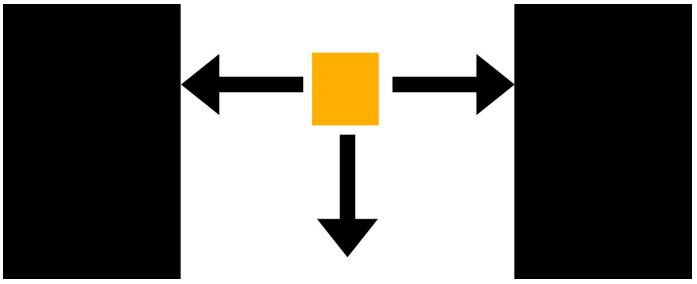
If the player's state is "moving" and the number of holes is <=3 then they can place down holes in any direction via clicking I to dig upwards, K to dig downwards, L to dig to the right, and J to dig to the left.

Thief movement



If thief state is "moving" then they will always move downwards, and depending on the position of the player, they will move either left or right.

If thief state is “idle” or “stop” then they will not move at all.



If thief state is “moving” they can clamp around the borders horizontally.

Thief getting caught in a hole

If thief state is “moving”, and they collide with a hole. Then thief state is “idle.”

Thief in idle state. If a thief’s state changes to idle, then thief counter is reduced by one. Multiple thieves can collide and change to idle state with the same hole.

Object Models (Data)

Player
PlayerClass.cs
int holeNum = 0;
float playerSpeed = 0.01f;
gameObject playerBox;
gameObject dottedLine;
gameObject holeOne, holeTwo, holeThree;

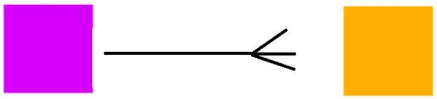
Thieves
ThievesClass.cs
int thievesNum = 7;

float thiefSpeedHori, thiefSpeedVerti;
bool thiefMotion = true;
gameObject thiefObject;
PlayerClass refToPlayer;

Game Manager
GameManager.cs
int resetLossCounter = 0;
bool reset = false, playerLoss = false;
bool playerWin = false;
PlayerClass refToPlayer;
ThievesClass refToThief;
TextMesh thiefNumDisplay, holeNumDisplay, resetCounterDisplay;
gameObject victoryScreen;

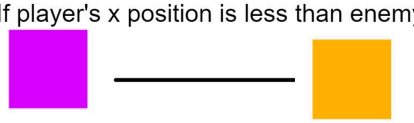
Entity Relationships

If the player collides with a thief



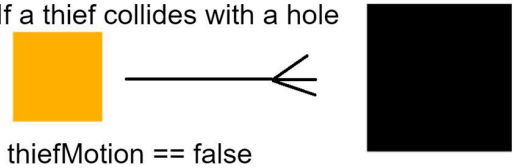
playerLoss == true
resetLossCounter += 1

If player's x position is less than enemy's x position



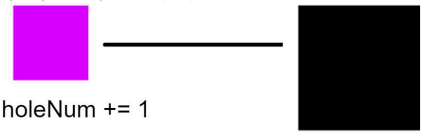
thiefSpeedHori = 0.1

If a thief collides with a hole



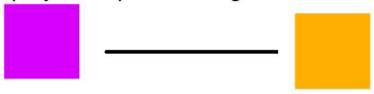
thiefMotion == false
thiefSpeedHori & thiefSpeedVerti == 0
thievesNum -= 1

If player inputs J, K, L or I and holeNum is <= 3



holeNum += 1

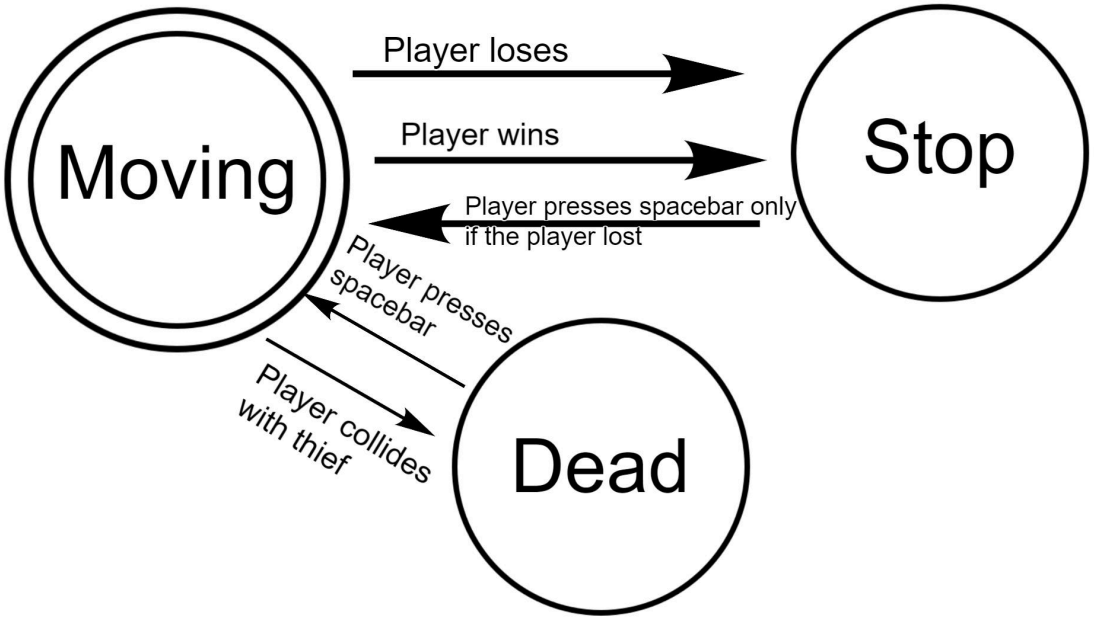
If player's x position is greater than enemy's x position



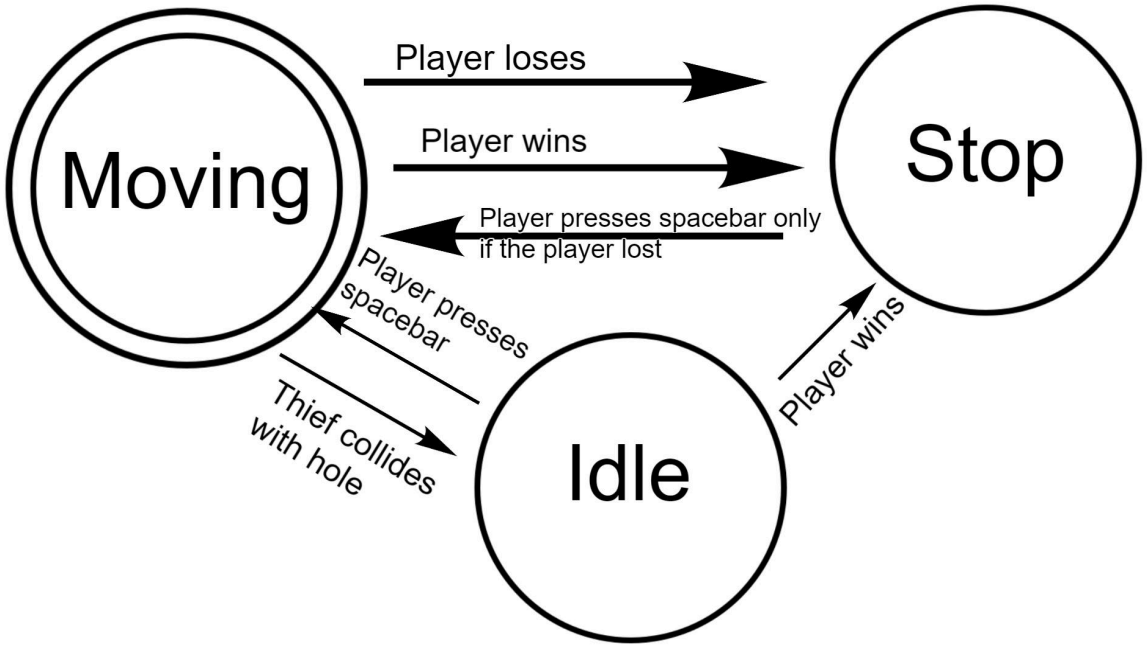
thiefSpeedHori = -0.1

Finite State Machines

Player FSM



Thief FSM



Intermediate expansions of the basic version

Implement more complex level design by introducing obstacles for the player's motion in the form of game objects that coincide with the folktale of Alibaba and the 40 Thieves (Dinner table in the middle of the level, flooring that affects the player's speed depending on location, previously formed traps from the thieves).

Add a stabbing mechanic, as the original folktale had Morgiana (the player insert) either trap the thieves in a hole or directly stab them. Hence allowing the player to strategically corner and stab a thief before directly colliding with them if they run out of holes to dig.

Advanced expansions of the basic version

Add a boss thief with his own specialized mechanics, since the original folktale ends with the boss thief being killed.

Introduce a wave game mode, where the player has to stop waves of thieves from reaching the master, and each wave introduces a larger variety of thieves, thieves with different abilities, and a highscore functionality. Within this wave game mode, the player can either pause or save the game.